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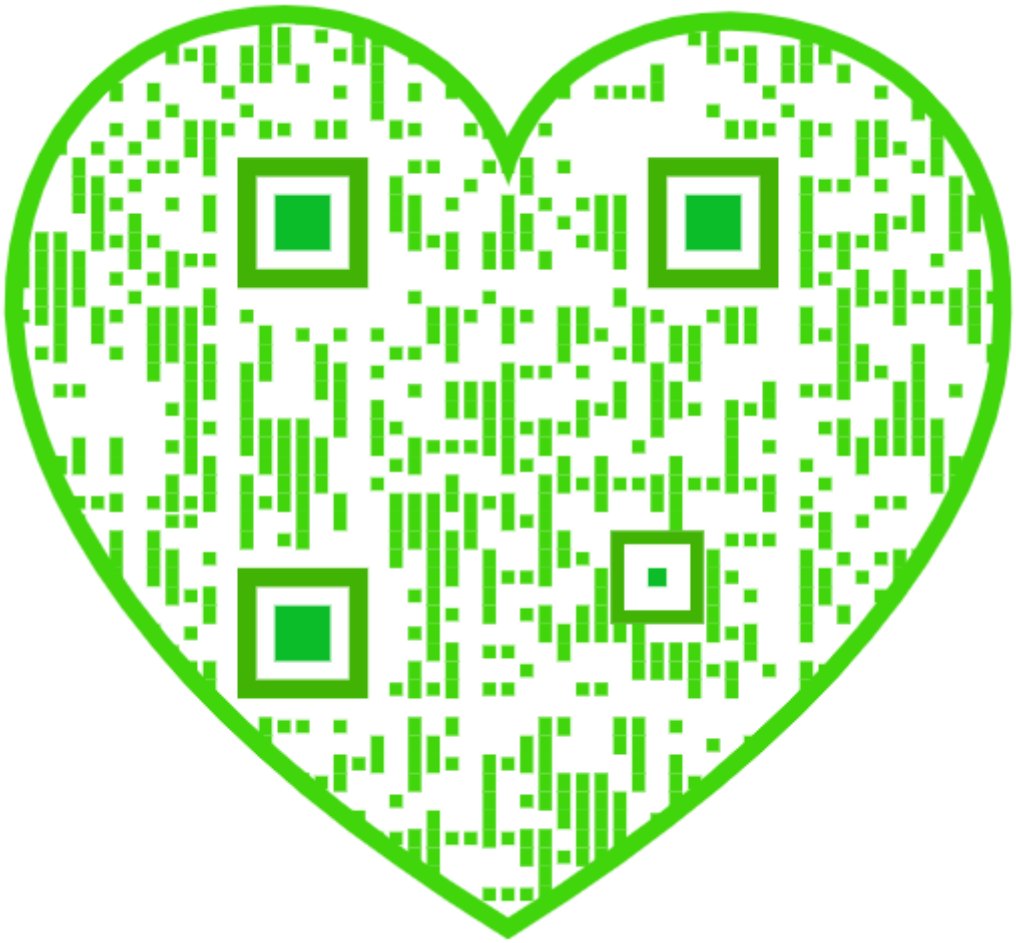

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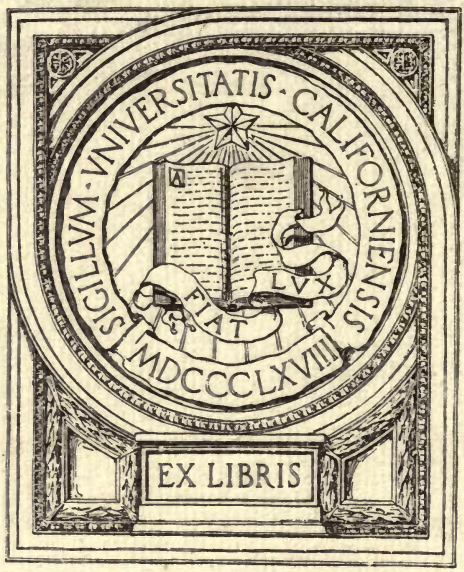

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A. D. MELVIN, CHIEF OF BUREAU.

THE ARMY REMOUNT PROBLEM.

BY

GEORGE M. ROMMEL,
Chief of the Animal Husbandry Division.

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CONTENTS.

	Page.
Introduction	103
Horse-breeding methods in Europe	103
The German Empire	103
France	104
Austria-Hungary	104
Italy	105
Purchasing remounts in Europe	105
Army horses in the United States	106
Army horses of the Civil War	106
The development of the draft-horse industry	107
Military horses in the United States to-day	108
Police remounts	108
Mounted service in the militia	111
Mounted service in the United States Army	112
What war requirements mean	113
The remount system in the United States	114
Weak points of the remount system	117
A plan to encourage the breeding of horses for the Army	119
Arguments for and against the plan	119
The present horse-breeding work of the Department of Agriculture and Army horse breeding	122
Summary	123

ILLUSTRATIONS.

	Page.
PLATE I. Army remounts in the Civil War. Ringgold's battery, United States Army on drill	106
II. Army remounts in the Civil War. Benson's battery, United States Army, in camp	106
III. Mounted police horses in the United States. Fig. 1.—New York mounted police. Fig. 2.—Chicago mounted police	112
IV. Type of horse now being issued to troops in the United States Army from remount stations	112
V. Horses at Fort Reno remount station shortly after arrival from purchasing officers	112

THE ARMY REMOUNT PROBLEM.

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INTRODUCTION.

The mounting of troops in an army is a most serious problem. Not only must provision be made for a supply of horses sufficient to equip the mounted service for the ordinary routine work during peace, but horses multiply slowly, and a reserve must be provided for use in case of an outbreak of hostilities. In the solution of this problem the European countries, with the exception of England, have for more than a century expended large sums of money in the encouragement of horse breeding, by maintaining breeding farms, by granting subsidies to stallions, by prizes for horses of suitable type, and by grants to breeders' associations, prizes for racing, etc. England has heretofore been content to rely upon the resources of her colonial possessions and the United States for such horses, but her experience in the Boer War 10 years ago, when she was forced to drain North America of a large proportion of the horses suitable for military purposes, has compelled her to accede to the demands of the army, and a grant of $200,000 has been made by the Board of Agriculture to encourage the breeding of military horses at home. That the United States faces a similar condition is a very widespread opinion.

HORSE-BREEDING METHODS IN EUROPE.

THE GERMAN EMPIRE.

Germany probably makes larger total expenditures for the encouragement of horse breeding than any other country, and of all the German States most attention is devoted to the subject in Prussia. The Prussian Provinces not only supply horses used in the army in Prussia, but in Bavaria, Saxony, Wurtemburg, and other parts of the Empire.

There are 5 breeding farms and 18 stallion depots in the Kingdom of Prussia, the farms containing a total of over 20,000 acres. The breeding work of the Government is partly to encourage live-stock raising in general, as well as for military purposes, although there are two Provinces in Prussia known as the "remount Provinces," where only the military object is considered by the Government.

The stallion depots (Landgestüte) are most important from a numerical standpoint, and contained 3,315 stallions in 1907. These stallions "make the circuit" from February to June, at fees ranging from $1.19 to $4.76.

The Prussian Government does not permit expense to stand in the way of acquiring the services of a valuable stallion. Large sums are appropriated annually for such purposes, and Derby winners are bought if needed. The budget of 1907 for the purchase of horses amounted to $440,000, with a special fund of $47,600. Among noted English Thoroughbreds which the Prussian Government has bought were the Derby winner of 1897, Galtee More, for which $66,640 was paid, and Ard Patrick, the Derby winner of 1902, for which $100,000 was paid.

FRANCE.

The breeding system of the French Government is especially interesting to an American on account of the large numbers of French horses which have been exported to this country. Although the work is done entirely by the Ministry of Agriculture, it is largely affected by military considerations. The French Government has a breeding farm at Pompadour of 1,122 acres where horses are bred, a sheep farm of 619 acres in connection with the agricultural school at Grignon, and the famous sheep farm at Rambouillet. Aside from these the breeding work is done through the medium of the "haras" or central studs, 22 in number, from which stallions are distributed throughout the country. In 1906 the French Government owned and used for breeding purposes 3,321 stallions, which covered 161,414 mares at an average fee of $1.47. The breeds used were as follows:

Thoroughbred	229
Arab	100
Anglo-Arabs	234
Half-blood (Demi-Sang)	2,208
Draft horses	550
Total	3,321

The Government also encourages horse breeding by examining and approving or disapproving privately owned stallions for breeding purposes, by giving prizes at horse shows, encouraging racing, and maintaining the studbook for Thoroughbreds and half-breds. During the year 1906 $1,718,129 was voted by the Chamber of Deputies for the improvement of the breeds of domestic animals, but more than twice this amount was spent, the balance being covered by the receipts from race tracks and other sources.

AUSTRIA-HUNGARY.

The efforts of the Austro-Hungarian Government to improve the condition of horse breeding and other forms of the live-stock indus-

try surpass those of all other countries in one respect—the magnitude of the breeding farms—in addition to which large numbers of stallions are placed at convenient stations during the breeding season, as in other countries. In Austria proper there are two state horse-breeding establishments, with farms in connection, leased by the Ministry of Agriculture. These are the one at Piber of 1,000 acres and the one at Radautz with 23,809 acres. The entire Government expenditure in Austria in 1907 was $938,000. This work is very largely dominated by military considerations. In Hungary are the great establishments of Mezöhegyes with over 50,000 acres of land, 2,000 horses, and 6,000 employees; Kis-Ber with over 18,000 acres of land; Babolna with over 10,000 acres; and Fogaras. In addition there are a number of stallion depots and two studs which breed horses solely for the Emperor's stables. With all this great outlay the Government it not able to supply the army, and over half the horses used are bred by private individuals without any assistance from the Government. The privately bred horses, however, are not so uniform in size and gait as those bred under Government supervision. The great estates of the Hungarian Government are not devoted entirely to raising horses, but large numbers of cattle and other animals are raised as well for public benefit.

ITALY.

The Italian Government does not devote so much attention to horse breeding as those already mentioned, but 640 stallions stood for public service in 1906, covering 29,462 mares.

PURCHASING REMOUNTS IN EUROPE.

In purchasing remounts, purchases are almost uniformly made in the open market, the purchasing board presenting itself at localities within a given district at stated times and making selections from among the horses offered. In Germany, for example, in 1910, 27,462 horses were offered, of which 13,660 were bought. The prices ranged as follows:

Prussia	$253
Bavaria:	
3-year-olds	243
4-year-olds	310
Saxony:	
Young horses	254
Older horses	321
Wurtemburg:	
Young horses	253
Older horses, from Prussian remount depots	368

ARMY HORSES IN THE UNITED STATES.

Next to Russia, the United States leads the world in the number of horses which it possesses. These horses, as everyone knows, are the descendants of horses brought from the Old World after the discovery of America by Columbus, as there were no horses on the American Continent at that time. Prior to the Civil War the horses of the United States were of the light type, with one prominent exception—the Conestoga draft horse of Pennsylvania, whose origin has always been shrouded more or less in mystery and whose complete disappearance was a remarkable result of the development of railway transportation. There are also a few minor exceptions. Well-authenticated evidence shows that a few draft horses were imported from France in the thirties, and the draft stallion Louis Napoleon, imported from France in 1851, appears often in the pedigrees of Percheron horses in the United States.

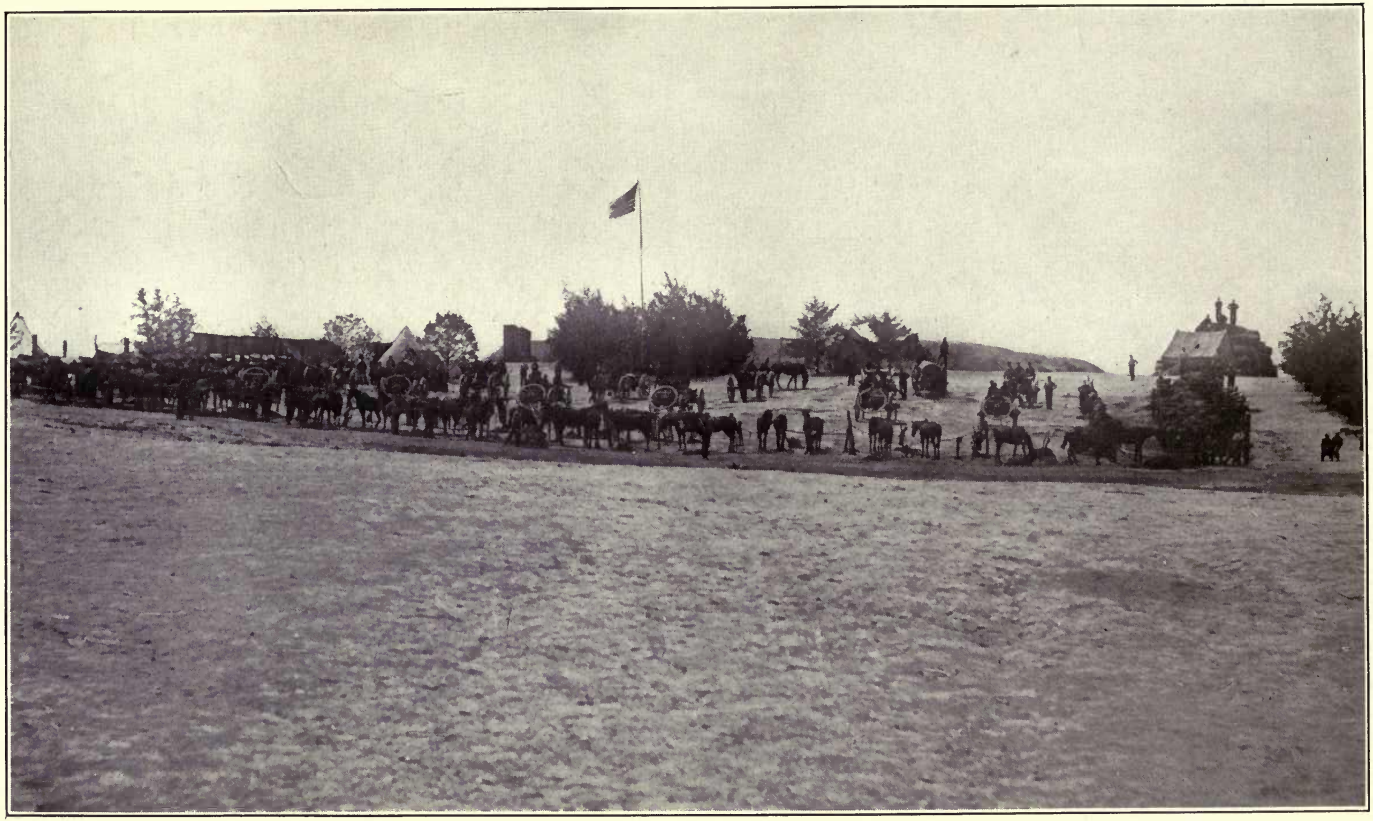
ARMY HORSES OF THE CIVIL WAR.

At the time of the Civil War, however, the horses of the United States contained so little cold blood that it was a negligible factor. The Morgans in New England, Standardbreds in New York and the Middle West, Thoroughbreds in Virginia, and saddle horses in Kentucky, Missouri, and Tennessee, predominated and made up the bulk of the splendid mounts of the contending armies of that great struggle. Even the much-despised plains horse (the mustang, cayuse, or broncho) was the descendant of warm-blooded horses and doubtless contributed his share to remounting the cavalry of both the Northern and Southern forces in the Civil War. The demands of these troops for remounts were enormous, but there does not seem to have been any insurmountable obstacle to the acquisition of these horses. They were in the country, they answered the purpose, and they were obtained when needed.

Unfortunately, the photographs of the cavalry and horse artillery of the Civil War are disappointing to the student desiring information on the character of horses on which troops were mounted. A careful search of the Brady collection in the War Department fails to show any photographs of mounted cavalry, but there are a few photographs of horse artillery which show fairly well the character of the horses then in service in the Northern Army, two of which are presented herewith (Pls. I and II). The imperfections of photography in those days made it impossible to catch the motions of animals exactly, but the illustrations are sufficiently clear to show that the mounts of the two batteries shown were horses of light type—warm-blooded horses. Draft blood is not apparent.

ARMY REMOUNTS IN THE CIVIL WAR. RINGGOLD'S BATTERY, UNITED STATES ARMY, ON DRILL.

(From the Brady collection of photographs in the War Department.)



ARMY REMOUNTS IN THE CIVIL WAR. BENSON'S BATTERY, UNITED STATES ARMY, IN CAMP.

(From the Brady collection of photographs in the War Department.)

The cavalry of the Southern Army was almost as numerous as that of their opponents, and the consumption of horse flesh was probably nearly as great. Yet the Southern troops were even better mounted than those of the North.

THE DEVELOPMENT OF THE DRAFT-HORSE INDUSTRY.

With the close of the Civil War began the rapid importations of draft horses from Europe, and this trade has flourished until the present time, with the exception of the period of depression during the middle nineties.

In the corn belt and in the irrigated sections of the West the draft horse is becoming the farmer's horse almost to the exclusion of horses of the light type, and rightly so. Where conditions of environment are satisfactory a farmer is wise to use draft horses because he can haul larger loads, get greater power for moving heavy implements, and suffers a minimum loss from blemishes when he markets his surplus. In some parts of the country, where a prosperous farmer formerly kept a fine team of drivers to get about over the country, the drivers have been discarded and the farmer now owns an automobile of moderate price. Even in the South, where the prolonged hot season undoubtedly works to the disadvantage of drafters, such horses are gaining a foothold.

That the lines are being closely drawn between the sections producing draft horses and those producing light horses is clearly shown by the reports of the stallion registration boards in those States which have adopted legislation requiring stallions to be licensed before being permitted to stand for public service. The following table shows the number of purebred stallions of draft and light type and ponies standing in 11 States, and an estimate of the purebred horses in New York, according to the latest information available, with the percentage of each type:

Purebred stallions in various States.

States.	Light.		Draft.		Pony.		Total number.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Illinois	1,608	31.70	3,408	67.19	56	1.10	5,072
Iowa	1,121	17.92	5,116	81.78	19	.30	6,256
Kansas	701	27.02	1,884	72.63	9	.35	2,594
Minnesota	252	17.51	1,184	82.28	3	.21	1,439
Montana	175	38.46	280	61.54	.....	.....	455
Nebraska	204	18.66	887	81.15	2	.18	1,093
New York [1]	865	57.59	361	24.03	276	18.38	1,502
North Dakota	114	11.39	886	88.51	1	.10	1,001
Pennsylvania	367	45.70	434	54.05	2	.25	803
South Dakota	165	13.43	1,062	86.41	2	.16	1,229
Utah	56	19.93	225	80.07	.....	.....	281
Wisconsin	436	32.68	894	67.02	4	.30	1,334
Total	6,064	26.30	16,621	72.08	374	1.62	23,059

[1] A partial list. New York does not have a stallion registration law. The information is from Bulletin 17, New York Department of Agriculture, and includes both sexes.

This table shows the figures for purebreds only. One can usually depend on a purebred stallion reproducing his type pretty accurately; no one knows what a grade stallion is likely to "throw."

The table shows emphatically that the draft horse is easily the more popular horse in nearly every State where figures are available, the percentage ranging from 24.03 in New York to 88.51 in South Dakota. Even in Pennsylvania, where conditions are not as a rule favorable to draft horses on account of the hilly and mountainous character of much of the State, over 50 per cent of the purebred stallions are drafters. In Wisconsin, Illinois, Iowa, Kansas, Minnesota, Nebraska, North Dakota, South Dakota, Montana, and Utah, where the light horse was formerly the preferred type, and from which section most of the remounts for the Army once came, the percentage of purebred stallions of the light type is as low as 11.39, and does not exceed 39 per cent. At the time of the Civil War there probably was not one draft stallion in all this territory, and this remarkable change has therefore been the result of less than 45 years growth. One can only wonder what the next 45 years will bring forth.

MILITARY HORSES IN THE UNITED STATES TO-DAY.

The argument is frequently advanced that if the War Department were to pay sufficient prices for horses it could easily obtain the number needed for the use of the Army. This argument is not exactly apropos. Under the remount system now in vogue, whereby the Government buys young horses direct from farmers, the supply necessary for the Regular Army on its present peace footing is being obtained in a fairly satisfactory manner, as the photographs of remounts accompanying this article will show. (See Pl. IV.) However, the Government is concerned in the encouragement of a supply of horses which will be profitable to those who raise them and which may be drawn upon in case of war. The well-worn dictum that preparedness is half the measure of success in a conflict applies no more to the subject of rifles, guns, and fortifications than to that of horses for the mounted service. A supply of horses sufficient to equip a modern army can not be picked up in a few weeks where it does not exist, and suitable horses can not be bred and raised to a usable age in much less than 6 years. We have already observed the sweep of the draft horse over the United States—a perfectly normal matter, based on sound economic laws. But an army can not be mounted on drafters if it is to use its cavalry and field artillery to good advantage.

POLICE REMOUNTS.

The success of the police departments of our large cities in providing their mounted men with good horses is always brought up to

show that a sufficient price will always provide sufficient horses of good type.

According to the census bulletin of 1907 giving statistics of cities there were in that year 1,106 patrolmen mounted on horses in the various city police departments. Of this number, 559 were in the cities of New York, Chicago, Philadelphia, St. Louis, and Boston. The total number of mounted policemen in the entire country, therefore, just about equals the enlisted strength of a regiment of cavalry on a war footing.

The authorized number of mounts for the Cavalry of the Regular Army on its present peace footing is 11,970, and on a war footing 17,100. The mounted police are practically comparable to the Cavalry on a war footing, and, therefore, the Army, on the basis of 15 regiments of Cavalry, requires over 15 times as many horses as the entire combined mounted police force of the United States.

Letters of inquiry sent out to the police departments of the cities named and that of Washington, D. C., elicited the following information for the year 1911, which, of course, shows some variation from the figures quoted above from the census bulletin:

Horses used by mounted police, six cities, 1911.

Cities.	Number of horses used by mounted police.	Number of horses purchased annually.	Breeding.	How purchased.	Price per head.
New York	464	75	Mainly trotting bred; some Thoroughbred blood.	Contract	$372.50
Chicago	50	5	Unknown	Various persons	225–250
Philadelphia	282	50–60	"Western bred"	Contract	210
St. Louis	70	Indefinite; 6 in 1911.	"Northern bred"	At National Stock Yards, Ill.	190–245
Boston	30	4	Unknown	Different dealers	325
Washington	57	Not known; each officer buys his own.	do	Various persons in District of Columbia, Maryland, and Virginia.	225

The information for the New York mounted police is particularly enlightening, as that body of men has a well-deserved reputation not only for horsemanship but for the excellent quality of its mounts. The department expects to purchase about 75 saddle horses in 1911 at a cost about twice as much per head as the cavalry remounts are now costing the Government under the remount system. This contract has been held for several years by one firm, which does a very extensive business in all kinds of horses and has buyers in various parts of the country where good horses are found. These buyers are familiar with the specifications of the New York police department and have instructions to buy horses when they find them conforming to those specifications. The horses selected come mainly from Indiana and

Missouri, and are said to be principally of trotting-bred stock; some are grade Thoroughbreds. Only about half the horses purchased are accepted by the police department, but the supply firm has no difficulty disposing of the others for general purposes. If this statement means anything, it means that, even at a price of nearly $400, it is not an easy matter to get enough horses to supply New York's apparently small demand of 75 head per year; and it is evident that if, under present conditions, the Government undertook to mount the regular cavalry as well as the New York police are mounted, it could only be done at tremendous cost, if at all.

For the information of the reader, the New York police contract specifications for saddle horses for 1910 are inserted here:

SPECIFICATIONS FOR SADDLE HORSES PURCHASED DURING 1910 FOR USE BY NEW YORK MOUNTED POLICE.

The police commissioner reserves the right to reject any or all horses not absolutely sound, or which may be determined by him to be unsuitable for the department service.

Each horse must remain on trial in the service of the police department for a period of 30 days, during which time he will be used for police service, in the discretion of the officials of the department. He will be so held at the risk of the contractor, and in case of sickness or injury during such trial service, he will be held in like manner for such additional days as may be required to fully develop the capacity of the horse for police service. Any horse failing to meet the requirements during such trial will be immediately removed and replaced as often as may be necessary to procure a horse perfectly satisfactory in every respect.

All horses to be geldings of good conformation, sound, well broken, prompt and light in movement. They must be handsome animals, bay color, black points, intelligent, tractable, showing breeding and superior class, and in all respects suitable for the police service as determined by authorized officials.

Saddle horses must be sound, well bred, of a superior class, and have quality; gentle and of a kind disposition, with light and elastic mouth, easy gaits, free and prompt action at the walk, trot, and gallop; free from vicious habits, without material blemish or defect, and otherwise to conform with the following description:

Horses to be gelding, solid bay, with black points, in good condition, from 5 to 8 years old, weighing not less than 1,050 pounds and not more than 1,100 pounds.

Height not less than 15½ hands or more than 16 hands high.

Head small and well set on neck; ears small and erect; forehead broad and full; eyes large and mild, vision perfect in every respect; muzzles small and fine and branches of under jaw (adjoining neck) wide apart.

Neck light, moderately long, with crest firm and longer than underside.

Withers elevated, well developed and muscled.

Shoulders long, oblique, and well muscled.

Chest full, deep, moderately broad and plump in front.

Back short, straight, and well muscled.

Loins broad, straight, very short, and muscular.

Barrel large, increasing in size toward flanks, with ribs well arched and close together.

Limbs: Forearm large, long, heavily muscled; hind quarters wide, thick, very long, full, and rounded externally; stifle large and well muscled, and hocks lean, large, wide from front to rear, and well situated; pasterns strong, medium length, not too oblique, and well directed.

Feet medium size, circular in shape, sound, of fine texture, sole concave, frog well developed, sound, firm, and healthy.

Each horse will be subjected to a rigid inspection, and any animal that does not meet the above requirements will be rejected.

The fact that the police departments of our cities are able to mount their men without resort to any plan to encourage the breeding of horses of the particular type desired has no bearing on the Army remount problem, on account of the small number required for the police. The Army could, by using a plan similar to that of the New York police, place men in various parts of the country to pick up desirable horses as opportunity offered, and this is practically what is now being done in supplying the remount depots. On account of the larger numbers required and the inevitable necessity of keeping in mind the supply of good horses in case of war, these officers are strongly impressed with the desirability of educating horse-raisers to breed intelligently and to use methods which will insure as much as possible reasonably profitable results. As Congress has expressly forbidden the War Department to expend any of its appropriation for breeding purposes, the dilemma in which officers find themselves may readily be seen.

MOUNTED SERVICE IN THE MILITIA.

Next to the police in intimacy of contact with the public is the mounted militia, and this subject may be passed briefly. If it is difficult to obtain the proper horses for the mounted police and the Regular Army, it is many times more so to get satisfactory mounts for the militia cavalry and artillery.

Squadron C (Brooklyn), New York National Guard, has taken quite a step toward solving this problem by maintaining a breeding farm, where some of the remounts needed are bred, and where horses owned by the squadron may be turned out if necessary. Squadron A occupies an armory in Manhattan, where the horses it owns are kept, but these represent only a part of the horses needed by the squadron; some are owned by the members, but many more are rented as needed.

The rented militia horse is not only a source of pain and discomfort to his rider, but is an expense to the State, which is usually out of proportion to the service rendered. When the encampment is over, the horse goes back to his owner and the Government has no claim on him if he is needed again. These horses are frequently poor livery hacks, untrained to work in mounted organizations, and would be decidedly unsatisfactory in real warfare. Further, it is only by

paying very high rates for their rental that they can be obtained even for an ordinary, peaceful encampment. Anyone who has visited or participated in a militia encampment in which mounted militia were engaged, and has seen the curious mounts provided for such troops, will readily appreciate the difficulty of obtaining really satisfactory remounts for this purpose.

MOUNTED SERVICE IN THE UNITED STATES ARMY.

The mounted service in the Regular Army is now being supplied with horses which are bought young, developed and trained in the remount depots, and issued to troops at 4½ to 5 years of age, properly trained and ready for work. The remount depots were first established in 1908, and already the wisdom of Congress is apparent in permitting the War Department to use abandoned military posts for this purpose. As will be shown under the next head, the horses for the depots are purchased by officers direct from farmers, and the middleman's profit under the old contract system is eliminated, the breeder receiving the money which the Government pays for the horse.

The War Department is now paying about $150 for 3-year-old unbroken colts, and somewhat less for 2-year-olds. The writer is permitted to make the following quotation from a recent letter from the officer in charge of the Fort Reno Remount Depot to the Quartermaster General concerning two lots of 2-year-old colts purchased in 1910 in Texas and Wyoming:[1]

These colts are now 3 years old, and have in my opinion made satisfactory growth.

The average height of the Texas colts is 14.3; average weight, 796 pounds; average growth in the year, 3 inches; average increase in weight, 115 pounds. By the time they are 5 years old, with the exception of probably 8 head, the average height should be 15.1 or over, and weight 1,000 pounds or over.

The average height of the Wyoming colts is 15 hands; average weight, 864 pounds; average growth about 2 inches; increase in weight, 48 pounds. Practically all this gain has been in the last few months. These colts at 5 years of age, with the exception of probably 3, should average well above 15.2, and weigh 1,050 to 1,100 pounds.

The Texas colts cost $80 per head, and the cost of forage from the date they were received (June 6, 1910) to June 1, 1911, was $32, making the cost of the colt to the Government when 3 years old $112.

The Wyoming colts cost $100 per head, and it has cost $25 per head to forage them from August 30, 1910 (date of receipt), to June 1, 1911, making the cost of the colts at 3 years of age $125.

Cost of the Missouri and Virginia horses at 3 years is $150 to $164.

The mounted service still contains a large number of unsatisfactory horses purchased under the contract system, and it will naturally be some time before all the horses in the Army will have been received

[1] See Plate IV for typical illustrations of these remounts in the rough.

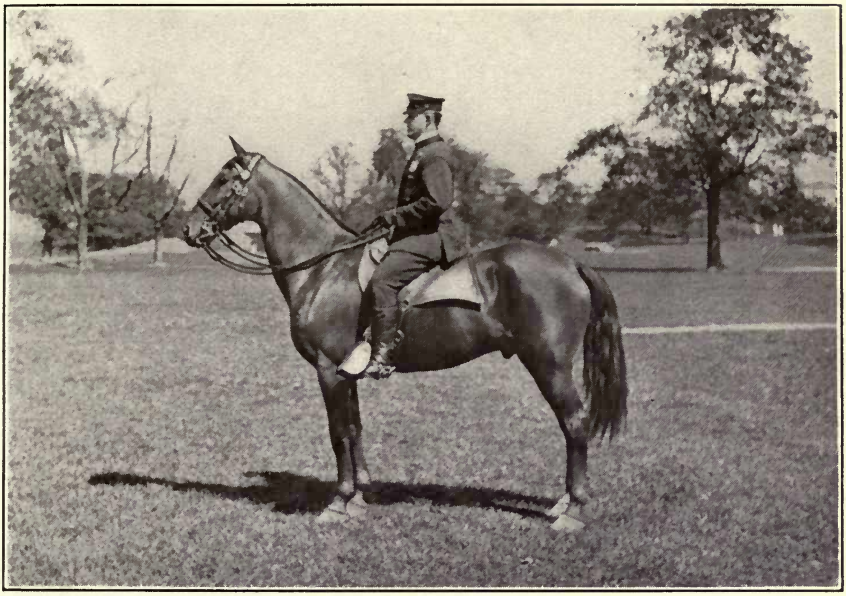


FIG. 1.—A REMOUNT OF THE NEW YORK MOUNTED POLICE. THE BEST MOUNTED ORGANIZATION IN THE UNITED STATES.

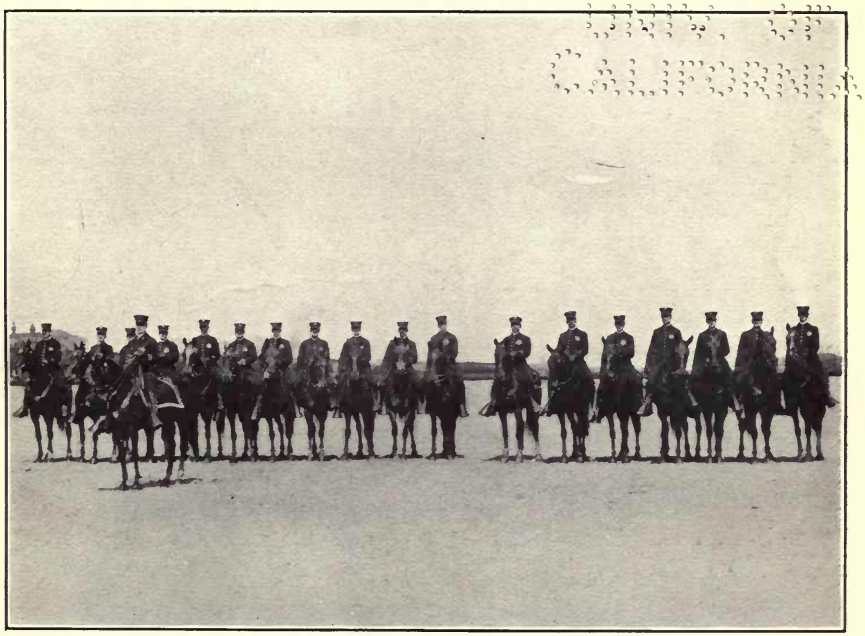


FIG. 2.—CHICAGO MOUNTED POLICE.

MOUNTED POLICE HORSES IN THE UNITED STATES.

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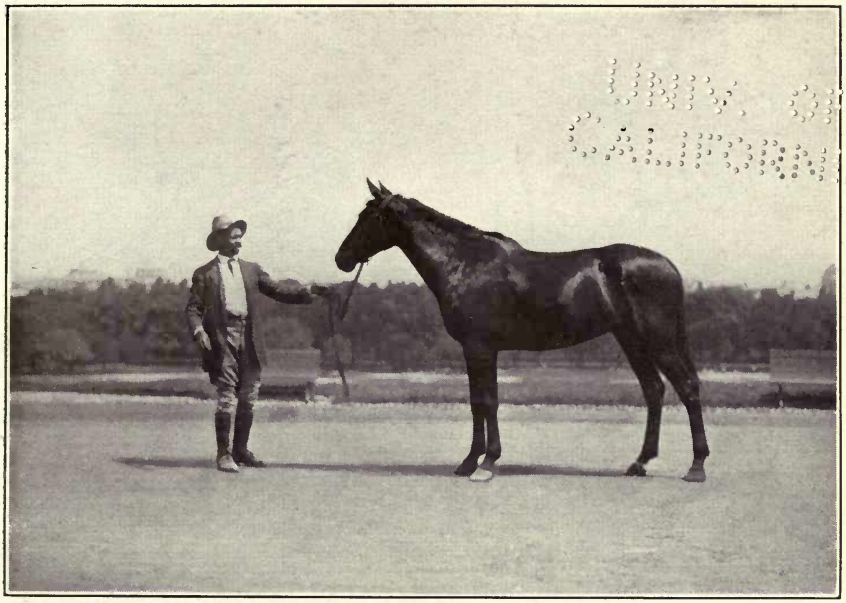

FIG. 1.—HALF-BRED VIRGINIA REMOUNT, PURCHASED BY AN OFFICER.

FIG. 2.—TROOP HORSE IN B TROOP, FIFTEENTH CAVALRY, FROM FORT RENO STATION.

TYPE OF HORSE NOW BEING ISSUED TO TROOPS IN THE UNITED STATES ARMY FROM REMOUNT STATIONS.

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HORSES AT FORT RENO REMOUNT STATION SHORTLY AFTER ARRIVAL FROM PURCHASING OFFICERS.

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from the remount depots. The system is satisfactory and adequate for the present peace footing, but what the country would do in case of war can only be conjectured.

WHAT WAR REQUIREMENTS MEAN.

The following table gives a slight idea of the difference between supplying the present demand of about 2,000 horses per year and the demands of war. It shows the number of remounts of all kinds required by the Regular Army and militia on a war footing, excepting draft horses and animals for wagon trains, some of which might be replaced by motor vehicles:

Total authorized animals, mounted service, Regular Army and militia, war footing.[1]

Class.	Regular Army.	Militia.	Total.
Cavalry	17,100	6,840	23,940
Artillery	4,708	9,108	13,816
Engineers	249	456	705
Signal	425	1,656	2,081
Hospital	692	439	1,131
Orderlies	620	480	1,100
Officers	3,352	2,262	5,614
Total	27,146	21,241	48,387

[1] From Quartermaster General's Office, War Department.

This table shows that on a war footing 50,000 horses (in round numbers) would be required before a shot was fired or a saber drawn, as against 20,000 horses now in the Regular Army on a peace basis. The number is regarded as conservative, as the figures show the minimum needed. The fact that new mounted organizations are constantly being formed in the militia will soon make these figures considerably under the mark.

On the basis of a 10-year life for a horse in the mounted service, under the remount system there should be available annually at least 5,000 horses to supply both the Army and the National Guard, but in war we can not count on a 10-year life. The decimation of horses in war is enormous and must be provided for if a country's mounted service is to be properly equipped. How much this should be the writer does not pretend to estimate. The Federal Government purchased during the fiscal year ended June 30, 1864, 188,718 horses. Captures reported added 20,388 more, and the number consumed daily was therefore 500 head, without considering those captured and not reported. During eight months of the year 1864 the Cavalry of the Army of the Potomac was remounted twice, nearly 40,000 horses in all being required. During his Shenandoah Valley campaign Sheridan was supplied with fresh horses at the rate of 150 per day. In his report

for the year 1865 the Quartermaster General of the United States Army stated: "The issue of Cavalry horses to the Army of the Shenandoah actively engaged under Major General Sheridan have been at the rate of three remounts per annum. The service of a Cavalry horse under an enterprising commander has therefore averaged only four months."

If the 50,000 horses now required by the mounted service of the Regular Cavalry and Militia (excluding those for wagon trains, etc.) were called into active war duty, we could look for a demand of upward of 150,000 horses per annum, basing the estimate on the experience of General Sheridan's army.

The British Army in South Africa 10 years ago consumed enormous numbers of horses, over 100,000 being bought in the United State alone, and, incidentally, it may be remarked that this exportation of horses went a great way toward causing the shortage of horses of the right type for Army purposes which we now observe in the United States and created a situation of which draft-horse breeders were quick to take advantage. It is exceedingly doubtful whether a foreign government could now obtain such a supply in the United States. How, then, could the United States itself mount an army? If with draft horses, or horses of draft breeding, how could it meet a hostile cavalry properly mounted?

THE REMOUNT SYSTEM IN THE UNITED STATES.

The use of remount stations in the United States as depots where young horses are developed and educated for use in the Army has been inaugurated during the last five years. In a lecture before the Army War College in February, 1907,[1] Major (now Quartermaster General) J. B. Aleshire presented an elaborate plan to improve the conditions under which horses and mules were supplied to the Army, urging the purchase of young horses direct from breeders and developing them at Army stations so that by the time they were mature they would be ready for actual service, undesirable ones would be weeded out, those retained would have been given rational development and handling, and a much longer period of usefulness could therefore be expected from them than from mature horses purchased under contract.

In presenting the report of the Quartermaster General for the fiscal year 1907, General Aleshire brought his remount plan directly to the attention of Congress.[2]

He urged the establishment of "three or more remount depots, to be properly organized, located, and equipped, and the same number of remount districts. * * * To each of the three or more remount depots would be assigned a remount district, and each depot and its tributary district would be in charge

[1] Army horses, etc., U. S. War Department, Washington, 1908.
[2] Annual Report, Quartermaster General, War Department, 1907.

of an officer of the Quartermaster's Department, preferably detailed from the cavalry or field artillery and especially adapted for this duty. * * * The officer in charge of each remount depot * * * would personally superintend the care and handling of the horses under his charge and see to it that the horses were well fed and cared for, gently and kindly handled at all times, and properly exercised and broken.

"When directed by proper authority, he would purchase young horses, to conform to specifications, within the district assigned to his remount depot, to which they would be shipped.

"He would be required to acquaint himself with and keep a record of the number and class of horses, how bred (if possible), by whom owned, where located, and generally complete data of the horse and mule production of his district, and be prepared to direct a purchasing officer or to go himself to the place most suitable for the establishment of subdepots, in case of an emergency, and where the best horses could be found.

"The average life or period of duration of cavalry and artillery horses has heretofore been 6.4 years, and that of the mule 10.6 years.

"In view of the fact that the young horses to be sent to the remount depots will be carefully selected and be purchased for remount purposes before they are worked down, injured, or spoiled by improper breaking, and since the number of remounts to be supplied annually is to be limited, which in time will result in the mount of each organization being composed of horses of ages from 4½ years up, the number of each age being approximately that supplied each year, it is submitted that the average life or period of duration of remounts for cavalry and artillery will be materially increased by this system of purchase and supply, and it is therefore taken at 10 years, barring epidemics, etc."

By the increase in the average life of animals purchased under this plan, the estimate was made that the cost of remounts for the Army could be reduced one-third. It was also suggested that the development of the plan and the experience gained by officers in connection with it would enable the Army better to meet emergencies requiring a large increase in the number of animals required.

Among the advantages of the proposed system were pointed out the following:[1]

The Army will be supplied with young, fresh, sound, and well-broken horses, in every way suitable for the service, and that have not been spoiled or injured while breaking, as is often the case under the present system.

These young horses will be fed grain and receive the best of care a year earlier, and therefore be much stronger and better animals when sent to the troops and batteries at from 4 to 5 years of age than if wintered by farmers or on the ranges and purchased a year later, as at present.

It creates a market for young horses from 3 to 4 years old, and the Quartermaster's Department would have few, if any, competitors; the first cost should therefore be less, and the department as a buyer would be in close touch with the horse raisers and breeders.

The average life or period of duration of the horse will be longer, so that about one-third less number of remounts will be required yearly, with a corresponding reduction in expenditure.

The cost will be one-third less, as the department will be able to select desirable young horses from all over the United States, whereas at present

[1] Ibid.

western horses, though in many cases well bred, are not desirable, as they are not broken, gentled, or handled until a week or two before they are offered for sale as Cavalry or Artillery horses, and when purchased many of them are never serviceable. This system will afford time and means to properly handle and break these young horses and to accustom them to man from an earlier age.

An opportunity will be afforded for a close and careful observance of all horses for several months before issued, and such as are found undesirable or not suited for the service can be disposed of from the depot. The Government would therefore save the freight to posts on such horses, and, since they are young, they should sell at the depot for nearly their first cost.

Horses will be uniform as to conformation, action, etc., and the special type desired will be standardized and understood by breeders and farmers.

Horses can be shipped in first-class condition in every respect and in cars that are sanitary; there should therefore be practically no sickness on arrival at posts.

Requisitions can be filled promptly without waiting for advertising and purchase, as at present, and horses of desired color can be sent to a particular troop or battery at no additional expense.

The Quartermaster General suggested the use of abandoned military posts, such as Fort Reno, where buildings were already available and the plan could be put into effect without extra expense. His recommendations were approved by Congress in the Army appropriation act for the fiscal year 1909, and under General Order No. 59, War Department, 1908, the military post of Fort Reno, Okla., was designated as a general supply depot of the Quartermaster's Department, and would thereafter be known as the Fort Reno Remount Depot. A year later General Order No. 80, War Department, 1909, similarly designated Fort Keogh, Mont., as a remount depot. Issues from the Fort Reno depot were commenced during the fiscal year 1909.[1]

In the spring of 1910 purchases of horses were begun in Virginia and Kentucky, and an officer was detailed for the purpose, with station at Front Royal, Va. The horses first purchased in this district were sent to Fort Reno, but in the Army appropriation act for the fiscal year 1912 an item of $200,000 was included for the purchase of land in Virginia for a remount station, where the horses in that district will be developed in future. The new station is located at Front Royal, on the Blue Ridge.

The following statement, furnished by the office of the Quartermaster General, United States Army, shows that the horses purchased under the remount system are costing the Government much less than those purchased under contract:

Fiscal year 1909.

Cavalry horses, average contract price	$160.06
Artillery horses, average contract price	191.12
Young horses for remount depots	146.28

[1] Annual Report, Quartermaster General, War Department, 1909.

Fiscal year 1910.

Cavalry horses, average contract price	$173.24
Artillery horses, average contract price	205.25
Young horses for remount depots	127.45

Fiscal year 1911.

Cavalry horses, average contract price	$166.76
Artillery horses, average contract price	212.17
Young horses for remount depots	134.07

The age at which young horses are being purchased is becoming less than was originally suggested, quite a large number of 2-year-olds being selected. Mainly, however, these horses are 3 years old, and few, if any, 4-year-olds are bought.

It is expected that eventually all the horses supplied to the Army will be purchased in this way. In fact, the contract system of buying is even now more or less of an exception, the only recent contracts of importance being during the maneuvers in Texas.

The remount plan in itself has everything in its favor and practically nothing against it. The farmer gets a fair price for his colt rather than a poor price on which a middleman formerly had to figure a profit. The Army now has a range of selection which it never had before; it is not now necessary to "take the cats and dogs" or go without horses; and, above all, the writer ventures the assertion that the remount system has had a decided influence on the horsemanship of mounted officers in the Army, for the simple reason that much more interest will be taken in a better horse concerning whose breeding something is known and whose history is known practically from birth.

WEAK POINTS OF THE REMOUNT SYSTEM.

The remount system has two weak points, which are not, however, inherent in the plan itself, but obtain in the conditions surrounding the horse-breeding industry, due to the peculiar developments of horse breeding in the United States during the last 40 years and the average man's lack of ability as a horse breeder.

The scarcity of suitable horses.—The scarcity of horses of the light type, from which the Army supply must come, has been fully set forth in the foregoing pages. Under the present peace footing the Army can and will obtain a fairly satisfactory supply of horses by the remount system; it can keep a staff of officers in the field looking for horses just as a large city firm of horse dealers keeps its buyers traveling, although at greater expense, because the Army is looking for only a few classes of horses, while the city firm handles all kinds; the numbers the dealer purchases are therefore much larger and the average expense to be charged against each horse is correspondingly less. It is not claimed that the Army can not now find the mounts needed under the present peace footing by means of the remount

plan of purchase and development, but it is claimed that there is no reserve; that a demand for a considerable increase in the number of horses used annually by the Army—such, for instance, as would be necessary in case of war—could not be supplied in a satisfactory manner from the supply of horses now in the United States, large in numbers as that supply is known to be; and it is also claimed that in the comparatively near future the developments of the horse industry will be such that unless steps are taken to stimulate a waning industry by Government encouragement the Army will be able to obtain its necessary horses only at greatly increased expense. The light type of horse will become more and more difficult to obtain, and the Army horse scarcer and scarcer. The Army can not be mounted on draft horses, and our farmers are now raising nearly two draft colts to one light colt.

People not closely familiar with the agricultural development of the country are wont to read complacently the magazine articles in which the wonderful development of the West is set forth in glowing terms. They are told that the settler is slowly but surely encroaching on the ranchman, that the saddle and lariat are giving way to the plow and harrow, and homes are building where cattle and horses roamed before. They do not realize that this western country was once the range of thousands of horses which were useful for Army purposes, and that the inevitable result of the new development in the agriculture of that section is to make horses and cattle scarce. They read of the wonderful agriculture of the corn belt, the production of cereals, the massive machinery, etc., not realizing that the farmer is compelled by these conditions to get a maximum amount of horsepower out of each work animal, to have his horses as large of frame and as small in number as possible.

The tide in favor of heavy draft animals on farms where topographical and climatic conditions favor their use will not, and doubtless can not, be turned. There is no reason why it should be turned. The Army must look elsewhere for its supply, and it is only plain business foresight and judgment for the Government to encourage the breeding of a type of horse, in suitable localities, that will be useful not only for the Army but satisfactory to the farmer as well.

Lack of system in breeding methods.—The remount system as at present established is also incomplete in that it provides no means whereby the breeding of horses of the proper type can be encouraged. Everyone knows the innate fascination for the average mare owner to see how many different experiments he may make in mating. He may own a good, useful type of mare, and he will breed to Standardbred, draft, pony, saddle, and Thoroughbred stallions, hit or miss, and not hesitate to try a jack to see what that will bring. The Army buyers will doubtless do all in their power to advise mare owners how to breed, but their advice can only carry such weight as more or

less acquaintance between the owner and the officer may effect. The only way to get anywhere in breeding is to be systematic, to adopt a policy and stick to it. The man who is always talking about crossing is usually the man who has more mongrels than his neighbors. The man who can cross successfully is the able breeder who needs no advice or assistance and who breeds horses far above the Army standard.

The experiment made in Virginia in the spring of 1911[1] shows that farmers will welcome an invitation to enter into cooperation with the Government in the production of horses for the Army. It appeals both to patriotism and the pocketbook. If such a plan is put into effect, the Government will know where horses are, it will know what they are, and it will be able to find and obtain them at a minimum cost.

A PLAN TO ENCOURAGE THE BREEDING OF HORSES FOR THE ARMY.

With the establishment of direct purchases from farmers in connection with the remount system, Army officers almost immediately found that it was not an easy task to find the required number of suitable horses and the matter was soon given consideration by the War Department, with the result that the Secretary of War laid the matter before the Secretary of Agriculture in 1910 and representatives of the two departments were designated to devise means to remedy the situation. The result was a plan for the encouragement of breeding horses for the Army. This plan appears in full in the Report of the Chief of the Bureau of Animal Industry for the fiscal year 1910.[2] In brief, the plan was drawn so as to provide in time for a sufficient number of remounts annually for the mounted service of the Army on the present peace footing. The country is to be divided into four breeding districts and 100 stallions purchased to stand for service free of charge for approved sound mares, the mare owner to give in return an option on the resulting foal during the year it is 3 years of age. The localities suggested for breeding districts are those where conditions are especially suited for horse raising, where the prevailing type of mares is most likely to approach that desired for the Army, where a light type of horse will always in the long run be the most profitable to the farmer and draft horses least likely to obtain a firm foothold, and where mares are sufficiently numerous to give the stallions maximum service.

Fifty Thoroughbred stallions, 25 Standardbreds, 15 Saddle stallions, and 10 Morgans are suggested.

ARGUMENTS FOR AND AGAINST THE PLAN.

Two arguments have been advanced against this plan—the first, that it is unnecessary because horses of the desired type are plentiful;

[1] See p. 116. [2] See Circular 178, Bureau of Animal Industry.

the second, that by adding the amount suggested for the breeding appropriation ($250,000 the first year and $100,000 in succeeding years) to the amount now appropriated for the purchase of horses for the Army, and thus adding $50 to $100 to the average price paid for horses, the necessary number could easily be obtained.

The writer believes that the figures shown on page 107 for the relative numbers of purebred draft stallions in various States effectually answer the first argument. It must be again plainly pointed out that there are now probably enough horses annually available for the requirements of the present peace footing of the Army. The country should in wisdom, however, provide for a reasonably sufficient supply in case of war, and it should take steps to check the unquestionable decrease in the breeding of light horses. Cavalry is of the utmost importance in warfare, and we must sooner or later either encourage the breeding of horses for the mounted service of the United States Army or dismount the cavalry.

The second argument voices a popular appeal which carries considerable weight, but it is very doubtful whether it would in any measure bring about the desired result. Let it be repeated that the Army is now paying good prices to farmers for the horses it buys. Officers claim that they are paying somewhat more than farmers have usually received for such horses. One hundred and fifty dollars for an unbroken 3-year-old colt, or $125 for a 2-year-old, are not starvation prices as farmer's colts run. The purchasing officers are buying in the face of the competition of other buyers. For the Government to add gratuitously $50 or $100 to the price now paid would be reckless and wasteful extravagance. This argument has been advanced by persons who do not seem to realize the difference between the direct system of buying young horses for the remount stations and the old system of buying by contract mature horses for direct issue to troops. The former eliminates the middleman's profit and gives the farmer a fair price; the latter gave the farmer a price which was far below what a good mature horse was worth, and the whole system worked against getting good horses. If the contract system only were considered, adding $50 to $100 to a minimum contract price might have some effect, but the contractor would probably be the principal gainer. The price paid by the Army for horses is now governed by supply and demand, just as that of any other commodity.

Again, if a given sum were added to the average purchase price and the country were plunged into war where large numbers of horses were needed, $50 to $100, nor twice those amounts, would not supply the demand unless horses of draft breeding were taken. Witness the New York police department, with a contract price of $372.50 per head, scouring the country for 75 saddle horses per year of certain definite specifications.

Lastly, the Government would be no further ahead than before by adopting such a policy. The Government would have absolutely nothing to show for the added expenditure. The horses would be no better and would last no longer. The same unsystematic methods now prevailing would still prevail. On the other hand, with the expenditure for breeding recommended by the Agricultural and War Departments, the Government would be able to develop a systematic and economical system of breeding; it would know what was wanted and would get it. It would also insure a reserve supply of horses if needed. It would not be worth while for the Government to pay $50 to $100 per head as a bonus or gratuity to the owners of colts, but it would be well worth that much for the Government to know what it was getting when a colt was purchased as a remount, to know that the horses bought for the Army were bred for that purpose, and that there were others to select from if needed. A further advantage which would accrue to the Government's profit would be that the exact location of available young horses would always be known, and no time would be lost in hunting for them; much of the incidental expense which is now necessary for traveling could therefore be saved.

What to do with horses bred under this plan on which the Government does not exercise its option is not a difficult problem. It is proposed to use only first-class, sound stallions, with good conformation and action. These stallions would be better than the average, and it is reasonable to suppose that their get would be also. Such being the case, those of the get which were not taken by the Government would be suitable for various uses as general-purpose horses, for farm work, saddle, etc. If the breeding plan is once put into complete operation there is no doubt that European buyers would be ready to take whatever they could obtain. It is also reasonable to suppose that on account of the high character of the stallions the percentage of unsound get would be below the average.

The effect which the plan would have on horse breeding in general would be decidedly beneficial. It would in the first place call attention to the advantages of certain localities for horse breeding and the suitability of certain breeds to certain localities (which has been neglected in the United States in all lines of stock breeding), and would therefore encourage specialization in horse breeding. It would give system in breeding where little now exists; and above all, it would direct immediate attention to the objection to the use of an unsound horse for breeding purposes, for no unsound stallion would be used nor an unsound mare bred.

THE PRESENT HORSE-BREEDING WORK OF THE DEPARTMENT OF AGRICULTURE AND ARMY HORSE BREEDING.

Shortly after the presentation of the army horse-breeding plan to Congress, Mr. August Belmont, of New York, offered the Government the use of two of his best-known Thoroughbred stallions, Henry of Navarre and Octagon, to be used to encourage the breeding of army remounts. These horses stood during the season of 1911 at Front Royal, Va., and were available for public service on the terms outlined in the Government's plan. About 50 mares were bred, and options were taken on the colts at $150 each at 3 years of age. The agreements were so drawn that the Government would waive its option on horses promising to mature over 16 hands. Half-breds over 16 hands in Virginia furnish the most of the high-class hunters from that section, and a concession on that point was deemed desirable.

Mares bred were required to be straight-gaited trotters without faulty conformation, such as curby hocks, and free from the following hereditary unsoundnesses:[1] Bone spavin, ringbone, sidebone, heaves, stringhalt, roaring, periodic ophthalmia, lameness of any kind, and blindness, partial or complete.

The experience of the department in this case has demonstrated that the Army horse-breeding plan is practical. Mare owners willingly enter into the agreement when they realize that it is one of mutual advantage. No difficulty whatever was experienced, and a much larger number of mares would have been bred had the horses reached Virginia somewhat earlier and had Octagon not had a serious attack of distemper shortly after his arrival.

The expenses of this trial have been slight, but such as have been incurred have been paid from the appropriation for cooperative experiments in animal feeding and breeding, in the act of Congress making appropriations for the Department of Agriculture, which provides authority for such experiments. It is really only an experiment, but so far as it has gone it is satisfactory. It should now be followed with a general introduction of the breeding plan.

The work in carriage-horse breeding in cooperation with the Colorado Experiment Station may have some bearing on the work of breeding Army horses, as the stallions bred in that project should make useful sires of artillery remounts; and the Morgan Horse Farm may produce some of the stallions needed for the New England district of the Army horse-breeding project. However, it should be specifically stated that neither project was outlined with the Army demand in view. The Army horse project, if provided for by Congress,

[1] This list was compiled several years ago by the Bureau of Animal Industry for another purpose, after consultation with members of the American Veterinary Medical Association and successful horsemen in various parts of the country. A Morgan stallion loaned by the bureau to the Massachusetts Agricultural College stood during the season of 1911 on similar terms, with satisfactory results.

will have no effect whatever on the purpose, plan, or methods of either the carriage horse or Morgan breeding projects, but horses bred at those stations may be used incidentally in the Army work.

SUMMARY.

1. All modern countries, except those in America, have found it necessary to encourage the breeding of horses suitable for military purposes.

2. Little or no difficulty was experienced in mounting the armies of the Civil War with suitable horses.

3. The draft-horse industry has been developed in the United States since the Civil War, and in several States there are now more than four times as many purebred draft stallions as purebred Standardbred, Thoroughbred, and coach stallions, notably in Iowa, Minnesota, Nebraska, North Dakota, South Dakota, and Utah. In North Dakota the ratio is nearly 8 to 1.

4. The difficulty and expense of obtaining suitable military horses is illustrated by the mounted police of our cities, whose mounted patrolmen combined would not equal a regiment of cavalry on a war footing. The New York police department buys only about 75 horses annually for its mounted police, and has to pay nearly $400 each for them.

5. The militia requires good mounts for its cavalry and artillery, but must depend on the holdings of livery stables and what can be picked up in other ways. Very little systematic work has been done in breeding horses for the militia.

6. The mounted service of the Army is now being furnished in a satisfactory manner with horses purchased and developed under the remount system.

7. An outbreak of war would necessitate at once more than twice the number of horses now in the Regular Army, and hostilities would probably require complete new issues every four to six months.

8. The remount system is working satisfactorily, but it will never be completely effective until steps are taken to alleviate the present scarcity of horses of the type needed for military purposes and to produce such horses in a systematic manner.

9. The plan devised by the Agricultural and War Departments to encourage the breeding of horses for the Army is necessary, because horses of the proper type are not sufficiently numerous to supply the Army in case of war, and the time may soon come when it will be difficult to supply those needed in peace; it is economical, because the expense of the plan, averaged on the colts purchased, would be met by value received, in the better quality of the colt, the fact that he was bred for the purpose, that the Government would know what it was getting, that the horses needed for the Army would be more readily found, and on account of the beneficial effect on horse raising

in general. It is practical, as has been shown by the experiment in Virginia during the season of 1911.

10. To add $50 or $100 to the price now paid for remounts would be wasting money. The farmer now receives as good a price for his colts from the Army as anyone else pays. If this plan were pursued, the Government would make no progress whatever toward the solution of the breeding problem, for it could have no influence on the methods used except in an indirect and futile way.

11. The general effects of the plan on horse breeding would be decidedly beneficial. It would tend to specialize horse breeding, it would discourage the breeding of unsound horses, and it would open up the market for horses of the Army type by creating a supply that foreign buyers would soon take to their advantage.

12. The horse-breeding projects of the Department of Agriculture now in progress may lend somewhat to the Army horse project, but they were not designed with that in view, and it would not be proposed to alter their purpose on account of the Army project.

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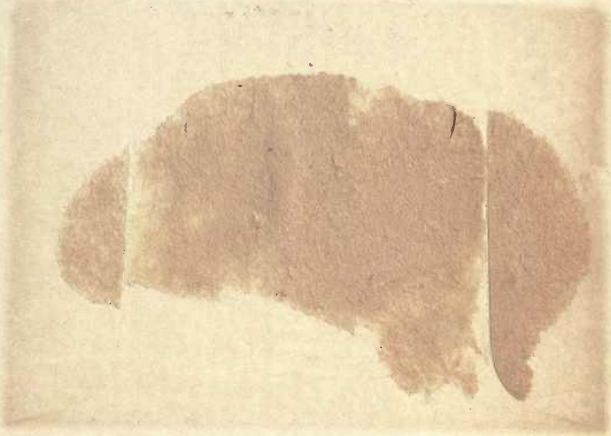
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